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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,390	02/18/2004	Ceary L. Eppley	MS1-1918US	1910

22801 7590 01/12/2007		EXAMINER	
LEE & HAYES PLLC		NGUYEN, CINDY	
421 W RIVERSIDE AVENUE SUITE 500			
SPOKANE, WA 99201		ART UNIT	PAPER NUMBER
		2161	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/12/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/12/2007.

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lhptoms@leehayes.com

	Application No.	Applicant(s)
Office Action Summary	10/781,390	EPPLEY ET AL.
	Examiner	Art Unit	
	Cindy Nguyen	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 December 2006</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>21-24</u> is/are allowed.

6)☒ Claim(s) <u>1-9,11-14,16-20 and 25-29</u> is/are rejected.

7)☐ Claim(s) <u>10 and 15</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>12/01/06</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

This is in response to amendment filed on 12/01/06.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 12/01/06 . The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Arguments

Applicant's arguments on claim Rejections *35 USC § 112* have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

Applicant's arguments on claims 1-10 Rejections *35 USC § 101* have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

Applicant's arguments on claims 11-13 and 25-29 Rejections *35 USC § 101* have been fully considered. However, Applicant directs to the original specification pages 24-25, which are reproduced below:

Computer-readable media can be any available media that can be accessed by computer 600 and includes both volatile and nonvolatile media,

removable and non-removable media. By way of example, and not limitation, **computer-readable media may comprise** computer storage media and **communication media.** ... Communication media typically embodies computer-readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism and includes any information delivery media. The term "modulated data signal" means a signal that has one or more if its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection and wireless media such as acoustic, RF, infrared and other wireless media.

A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result, and does not fit within the definition of a machine. A claimed signal is not matter, but a form or energy, and therefore is not a composition of matter or product).

Applicant's arguments with respect to claim *rejection 35 USC § 102 and 103* have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

In claim 1 lines 6 and 8, it is suggested to change "one or more filters" to ---one or more filters tree---

In claim 3 lines 1, it is suggested to change "a node" to ---a match node---

In claim 3 lines 3, it is suggested to change "the node" to ---the match node---

In claim 3 lines 2 and 3, it is suggested to change "filter" to ---a filter tree---

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-13 and 25-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 11-13 and 25-29, a computer-readable media carrying one or more sequences of Instructions for executing transactions is recited in the claim. "Computer-readable medium" as defined in the specification (0106, 0109) includes modulated signal such as a carrier wave or other transport mechanism and includes any information delivery media such as wired network or direct wired connection and wireless media such as acoustic, RF, infrared and other wireless media. A signal encoded with functional descriptive material does not fall within any of the categories of patentable subject matter. Therefore, claim8 is not statutory (As set forth in § 101, a claimed signal is clearly not a process under § 101 because it is not a series of steps. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result, and does not fit within the definition of a machine. A claimed signal is not matter, but a form or energy, and therefore is not a composition of matter or product).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 6, 8 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Gunsay 6781961).

Regarding claim 1, Gunsay discloses: A method implemented at least in part by a machine, the method comprising: receiving an input that include hierarchical data (col. 2, lines 44-50, Gunsay); traversing a filter tree according to segments of the hierarchical data to locate one or more matching nodes that correspond to the hierarchical data (col. 2, lines 14-24, Gunsay); comparing at least a portion of the input to one or more filters associated with the matching nodes (6, lines 34-46, Gunsay); and executing instructions associated with one or more filters satisfied by the input (col. 8, lines 21-43, Gunsay).

Regarding claim 2, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Gunsay disclose: further comprising applying a precedence rule to the matching nodes, wherein the comparing step is performed on a subset of the matching nodes that is determined by the precedence rule (precedence rule interpreted as the input message pass the root filter... pass the terminal filter in order to compare, col. 8, lines 21-43, Gunsay).

Regarding claim 3, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Gunsay disclose: wherein a node may be associated with

instructions but no filter, in which case the input is deemed to match a filter for the node, thereby resulting in execution of the instructions (col. 8, lines 21-43, Gunsay).

Regarding claim 5, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Gunsay/Gunsay disclose: wherein: a root node of the tree corresponds to a first segment of the hierarchical data (root filter fig. 3 and corresponding text, Gunsay); a child node of the root node corresponds to a second segment of the hierarchical data (intermediate filters, fig. 3 and corresponding text, Gunsay); and a bottom-level node of the tree corresponds to a last segment of the hierarchical data (Terminal filters fig. 3 and corresponding text, Gunsay)

Regarding claim 6, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Gunsay/Gunsay disclose: wherein each node of the filter tree references zero or more filters (col.5, lines 50-67, Gunsay).

Regarding claim 8, all the limitations of this claim have been noted in the rejection of claim 7 above. In addition, Gunsay/Gunsay disclose: wherein the input further comprises message data that is transmitted to a location identified by the destination path if the input satisfies a filter that is referenced by a filter tree node associated with the destination path.

Regarding claim 11. Gunsay disclose: A filter tree data structure stored on one or more computer-readable media, comprising: a first level having a root node that corresponds to an

initial segment of hierarchical data (root filter 36, fig. 3, Gunsay); at least one intermediate

level having at least an intermediate node that corresponds to an intermediate segment of the

hierarchical data, the intermediate node being subordinate to the root node (intermediate filters

34, fig. 3, Gunsay); a bottom level having at least a bottom level node that corresponds to a

final segment of the hierarchical data, the bottom level node being subordinate to an

intermediate node (terminal filter 32, fig. 3, Gunsay); and wherein at least one node is an active

node (root node) that references an instruction set that is executed when an input is received that

includes the segment corresponding to the active node and segments corresponding to all nodes

superior to the active node (col. 8, lines 21-43, Gunsay).

Regarding claim 12, all the limitations of this claim have been noted in the rejection of

claim 11 above. In addition, Gunsay disclose: wherein: the active node further comprises a

reference to a filter; and the instruction set is executed only if the input satisfies the filter (col.

8, lines 21-43, Gunsay).

Regarding claim 13, all the limitations of this claim have been noted in the rejection of

claim 11 above. In addition, Gunsay disclose: wherein the instruction set if executed only if the

active node is a bottom level node (col. 8, lines 39-43, Gunsay).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 7, 9 and 14, 16-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Brown et al. (US 20040220909) (Brown) in view of Gunsay

(6781961).

Regarding claim 14, Brown discloses: A system, comprising: memory (16, fig.

1, Brown); a filter tree stored in the memory (paragraph 0022, Brown), at least one node of the

filter tree referencing a filter (0025, Brown) a primary matching module configured to locate

one or more filter tree nodes that match one or more of the segments (30, fig. 1 and

corresponding text, Brown).

However, Brown didn't discloses: a secondary matching module configured to identify

any filters associated with the one or more matching filter tree nodes and to compare the

message against the filters to determine if the message satisfies any of the filters; and a

message processing module configured to execute instructions associated with any filter that is

satisfied by the message; a message input module configured to receive a message of

hierarchical data that includes a path having one or more segments of hierarchal data. On the

other hand, Gunsay disclose: a secondary matching module configured to identify any filters

associated with the one or more matching filter tree nodes and to compare the message against

the filters to determine if the message satisfies any of the filters (col. 6, lines 34-46, Gunsay);

and a message processing module configured to execute instructions associated with any filter

that is satisfied by the message (col. 6, lines 21-32, Gunsay); a message input module

configured to receive a message of hierarchical data that includes a path having one or more

segments of hierarchal data (col. 4, lines 66 to col. 5, lines 15, Gunsay). Thus, at the time

invention was made, it would have been obvious to a person of ordinary skill in the art to

include receiving a message as above in the system of Gunsay as taught by Gunsay. The

motivation being for routing electronic messages in a tree structure such that input message may

be propagated down one or more branches of the tree structure to arrive at any terminal nodes of

the tree having a value that describes the input message providing extremely organized in the

filtering (col. 2, lines 45-50, Gunsay).

Regarding claim 4, all the limitations of this claim have been noted in the rejection of

claim 1 above. In addition, Brown/Gunsay disclose: wherein the hierarchical data further

comprises a path that identifies a location in a hierarchical system (0055). The motivation

being to provide a filter identification system for identifying a set of corresponding filters from

the set of jilters by comparing the network document to the hierarchical tree to identify a set of

satisfied filters.

Regarding claim 7, all the limitations of this claim have been noted in the rejection of

claim 1 above. In addition, Brown/Gunsay disclose: wherein the hierarchical data further

comprises a destination path identified by a segment string (0053, Brown).

Regarding claim 9, all the limitations of this claim have been noted in the rejection of claim 1 above. identifying the hierarchical data contained in the input and parsing the hierarchical data into segments for use with matching (0053-0055, Brown). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include identifying the hierarchical data contained in the input and parsing the hierarchical data into segments for use with matching in the system of Gunsay/Gunsay as taught by Brown. The motivation being to provide a filter identification system for identifying a set of corresponding filters from the set of jilters by comparing the network document to the hierarchical tree to identify a set of satisfied filters.

Regarding claim 16, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Brown/Gunsay disclose: wherein the filter referenced by the at least one node further comprises a null filter that is deemed to be satisfied by any input message compared thereto, thereby resulting in the execution of instructions associated with the node referencing the null filter (col. 2, lines 45-50, Gunsay).

Regarding claim 17, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Brown/Gunsay disclose: wherein the message path is of a hierarchical nature and successive path segments correspond to successively subordinate levels of the filter tree (col. 5, lines 25-40, Gunsay).

Regarding claim 18, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Brown/Gunsay disclose: wherein the primary matching module is further configured to: identify one or more path segments included in the message (0053, Brown); locate filter tree nodes associated with each path segment; and determine that each node located matches the message (0054, Brown).

Regarding claim 19, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Brown/Gunsay disclose: wherein the primary matching module is further configured to: identify one or more path segments included in the message ()055, Brown); locate filter tree nodes associated with each path segment (0053, Brown); and determine that a node associated with a final path segment is the only node that matches the message (0055, Brown).

Regarding claim 20, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Brown/Gunsay disclose: wherein the primary matching module is further configured to: identify one or more path segments included in the message; locate filter tree nodes associated with each path segment; and determine that a node associated with an initial path segment is the only node that matches the message (0055, Brown).

. Allowable Subject Matter

Claim 10, 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 21-24 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record failed to disclose: make obvious, or otherwise suggest : a method implemented at least in part by a machine the method comprising: wherein the traversing step further comprises: wherein the traversing step further comprises: comparing a first segment of the hierarchical data with a first node in a filter tree level that corresponds with a position of the first segment in the hierarchical data; if the first segment does not match the first node, determining that the input does not match the first node; if the first segment matches the first node and there is a subsequent second segment in the input, comparing the subsequent second segment to one or more second nodes in the filter tree that are subordinate to the first node; and if the first segment matches the first node and there is not a subsequent second segment in the input, determining that the input matches the first node.

The following is an examiner's statement of reasons for allowance: the prior art of record failed to disclose: make obvious, or otherwise suggest : a method, comprising traversing a hierarchical data structure stored in the memory that is used to reference each of the multiple filters to determine if an existing location in the data structure matches the segment path

included in the data transmission if an existing location is not found, creating a new location in

the data structure, the new location being determined according to the hierarchical reference data

and storing a reference to the new filter at the new location as recited in claim 21.

The following is an examiner's statement of reasons for allowance: the prior art of

record failed to disclose: make obvious, or otherwise suggest : a system comprising: a

secondary matching module, wherein the secondary matching module is further configured to

apply a precedence rule to the one or more matching filter tree nodes to derive a subset of the

matching filter tree nodes and to identify only the filters associated with the subset of matching

filter tree nodes as recited in claim 15.

The dependent claims 22-24 , being further limiting to the independent claim 21

definite and fully enable by the specification are also allowed.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can

normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

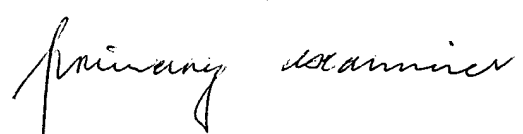Jeffrey A. Gaffin can be reached on 571-272-4146. The fax phone numbers for the organization where

this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-

9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should

be directed to the receptionist whose telephone number is 703-305-3900.

Cindy Nguyen
January 4, 2007